



**FORCED AIR GAS FURNACES—UP-FLO
G11Q SERIES
DIRECT DRIVE BLOWERS
82,000 to 165,000 Btuh Input
Add-On Cooling — 2 thru 5 Nominal Tons**

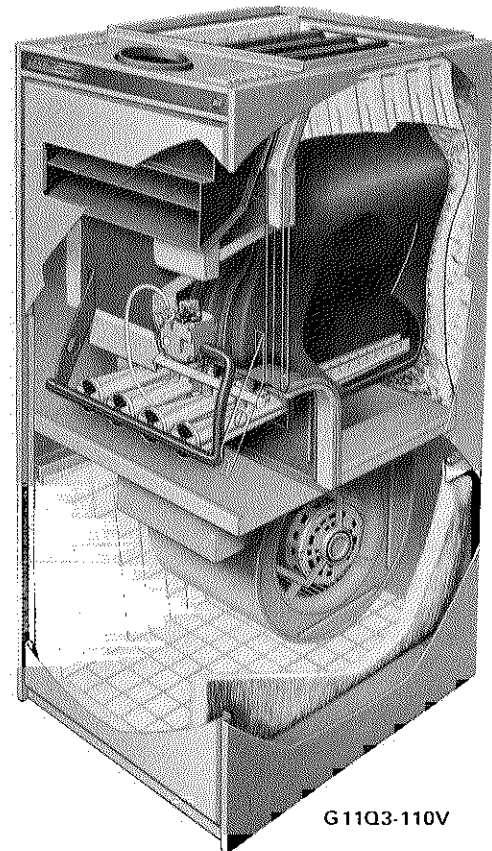
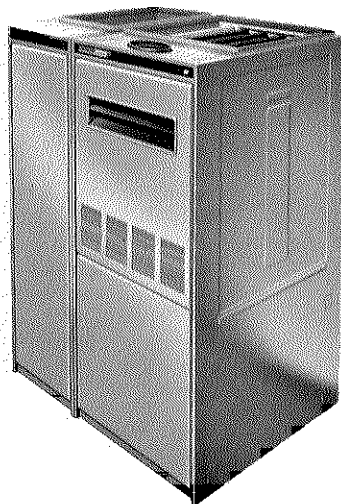
- DURACURVE[®] Heat Exchanger with LENNOX DURAGLASS II[®] Coating
- Sized For Air Conditioning
- Extra Large Filter
- Continuous Port Steel Burners
- Many Sizes Available
- Low Height Compact Lines
- Crisp Cabinet Lines
- Return Air Choice
- Complete Service Access



**Up-Flo Gas Units Feature Trim Appearance,
Great Dependability And Application Choice**

The Lennox gas fired up-flo G11 Series are equally applicable to residential and small business or commercial installations. The low height, quietness of operation and ultra modern cabinet design permits installation in a recreation or family room, basement, utility room or closet. A lo-boy type installation is made possible with the addition of a deluxe return air cabinet to the hi-boy furnace. The low height of the furnace, due to the expert design features of the DURACURVE heat exchanger, will allow ample space for basement installations. The return air cabinet can be installed on either side of the furnace, a real plus feature in a lo-boy type installation. The high-style furnace and return air cabinets are trim and sheer looking with a furniture finish of baked-on enamel. Die formed panels and doors have a ruggedness and appearance unequalled. Lennox direct expansion evaporator units and matching condensing units, electronic air cleaners and power humidifiers can be added for a complete all season Total Comfort installation. Quiet operating blowers have sufficient capacity to handle air conditioning air volume requirements. The design of the G11 units is completely certified by A.G.A. In addition units have been developed and thoroughly tested in the Lennox Research Laboratory. Each unit is test operated on the assembly line before shipment insuring proper operation. Blower data is from unit tests conducted in the Lennox Research Laboratory air test chamber. Units are shipped completely factory assembled with all controls installed, piped and wired. Installer has only to mount thermostat, make duct, flue, gas supply and electrical supply connections to complete a low cost installation.

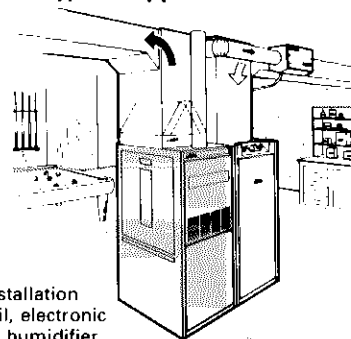
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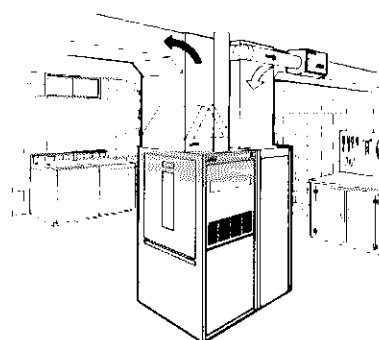
G11Q3-110V

Typical Applications

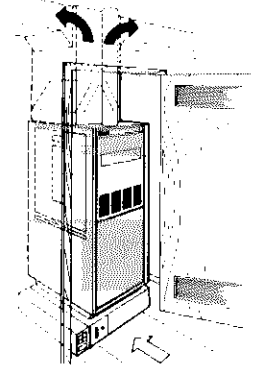
Basement Installation
With cooling coil, electronic
air cleaner and humidifier



Basement Installation
With cooling coil, return air
cabinet and power humidifier



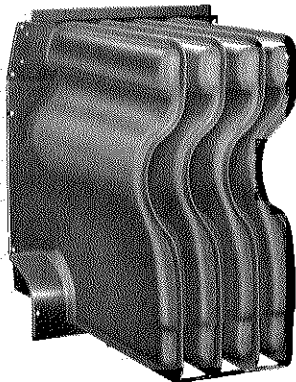
Closet Installation
With cooling coil and
electronic air cleaner



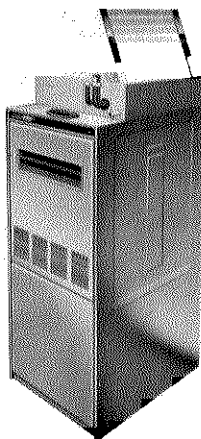
FEATURES

Lennox DURACRUE Heat Exchanger with DURAGLASS II Coating

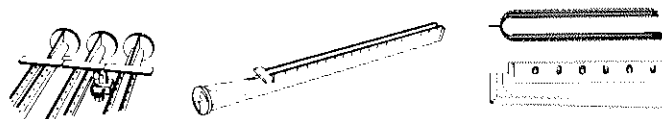
— Lennox developed heat exchanger eliminates fatigue failure, ticking resonance and cleanability problems. In the unique design of this heat exchanger the sides of the clam section form a flue restriction zone comprised of sections of two concentric cylinders. As the sides grow they expand and move, but in the same direction and at the same rate. The result is perfect combustion, proper venting and absolute freedom of movement for the metal. Design of heat exchanger will allow cleaning with a flexible cleaning tool. Compact construction permits low overall design of the furnace cabinet and smooth lines give minimum resistance to air flow. Life cycle insures long life of heat exchanger. To insure maximum service life the heat exchanger is coated with Lennox DURAGLASS. Coating is fused to the entire heat exchanger inside and out.



Rugged Cabinet — Constructed of heavy gauge cold rolled steel, cabinet surface temperatures are low due to interior metal liners on each side of the cabinet and foil covered fiberglass insulation on vestibule panel and on back panel. Draft diverter is DURAGLASS coated to resist corrosion and provide maximum service life. Leveling bolts and nuts are furnished and holes are provided in base to level unit. Complete service access is accomplished by removing furnace and blower compartment doors. Blower assembly and filter may be completely removed from unit for service. Gas piping and electrical inlets are provided in both sides of cabinet. Return air entry is possible on either side or bottom of cabinet. Matching add-on Lennox up-flo evaporator coils (2 thru 5 nominal tons) are available for all season applications.

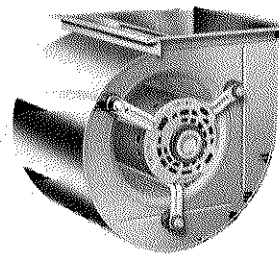


Cabinet and Blower Paint Process — The cabinet and blower have a special "Electro Deposition" process paint finish. Metal preparation consists of a special 6 station wash metal process. 1 — Spray application of a strong alkaline cleaner. 2 — Spray water rinse. 3 — Spray application of a corrosion resistant, paint bonding iron phosphate compound. 4 — Spray water rinse. 5 — Spray application of a chromic acid. 6 — Spray rinse with "de-ionized" water. After the final rinse the cabinet and blower enter a drying oven and are completely dried before receiving the paint finish. They are then completely submerged in the paint vats where the electroplating paint finish is applied. The paint solution and metal are given opposite electrical charges resulting in positive adhesion and even coverage of the paint to the metal surfaces. This process completely covers the entire surfaces, inside and out, including the edges of assembly holes. Following the paint process the finish components enter a high temperature oven where the bonded finish is baked on.



Steel Burners — Each burner has four rows of practically continuous ports which result in quiet and clean combustion. A crossover igniter of actual burner ports, perpendicular to the main burner, carries a positive flame from burner to burner to achieve quiet and sure ignition.

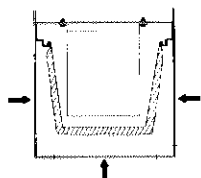
Powerful Blowers — Units are equipped with quiet variable speed direct drive blowers. Each blower assembly is statically and dynamically balanced. Multiple-speed motor is resiliently mounted. A choice of blower speeds is available on each blower. See blower performance charts. Change in blower speed is easily accomplished by simple wiring change.



Wiring Junction Box — Power supply and thermostat wiring connections are made at the wiring junction box. Conveniently located in a blower compartment for easy access. Provisions have been made in the box for additional wiring connections required for power humidifiers and electronic air cleaners. See wiring diagram inside blower compartment door.

Transformer — 30 VA control transformer is furnished as standard equipment and is factory installed in wiring junction box.

Blower Cooling Relay — Furnished as standard equipment and factory installed in the wiring junction box. Relay activates blower operation during cooling cycle.



Large Air Filter — Units are equipped with hammock wrap around type filter. Media is one inch thick oil impregnated fiberglass. Filter mounting rack design provides quick and simple replacement of media for servicing.

Fan and Limit Controls — Factory installed and accurately located fan and limit controls give protection against abnormal operating conditions and controls blower operation. Continuous blower operation may be accomplished by adjusting the fan control to the minimum temperature setting.

Automatic Gas Controls — Silent operating gas controls provide 100% safety shutoff. Manual lighted pilot burner provides sure and safe burner operation.

Thermostat (Not Furnished) — Heating thermostat is optional equipment and must be ordered extra. For all season applications heating-cooling thermostat is furnished with the condensing unit.

Fresh Air Inlet (Optional) — Fresh air inlet provides entry of outdoor air into return air system of installation. Equipped with internal mesh screen. Connects to 6" round pipe. Order number BM-3632.

Lennox Total Comfort System — Consists of central furnace with the air mover, central air conditioning system, air filter and humidifier. Air is circulated through these units (also the proper amount of outdoor fresh air, if desired) where it is heated or cooled, cleaned by the air filter and humidity added (in summer humidity is removed). The air mover (blower) operates constantly, gently and quietly 24 hours a day. This constant air circulation keeps even room temperature and lowers operating costs by continually mixing and recirculating the air.

SPECIFICATIONS

Model Number		G11Q3-82V	G11Q3-110V	G11Q3-137V	G11Q4-137V	G11Q5-137V	G11Q5-165V
Btuh input		82,000	110,000	137,000	137,000	137,000	165,000
Btuh bonnet output		65,600	88,000	109,600	109,600	109,600	132,000
Flue size (in.)		4	5	6 oval	6 oval	6 oval	6 oval
High static certified by A.G.A. (in. wg.)		.50	.50	.50	.50	.50	.50
Gas piping size (I.P.S. in.)	Natural	1/2	1/2	1/2	1/2	1/2	3/4
	Propane	1/2	1/2	1/2	1/2	1/2	3/4
Blower wheel nominal diam. x width (in.)		10 x 7	10 x 8	10 x 8	12 x 9	12 x 12	12 x 12
Blower motor horsepower		1/3	1/3	1/3	1/3	3/4	3/4
Net filter area (sq. ft.) & cut size (in.)		(5.8) 36 x 28 x 1	(6.6) 40 x 28 x 1	(8.9) 52 x 28 x 1	(8.9) 52 x 28 x 1	(8.9) 52 x 28 x 1	(9.2) 54 x 28 x 1
Tons of cooling that can be added		2, 2-1/2 or 3	2-1/2 or 3	2-1/2 or 3	3-1/2 or 4	4 or 5	4 or 5
Net weight (lbs.)		167	194	239	252	265	301
Number of packages in shipment		1	1	1	1	1	1
Electrical characteristics		120 volt — 60 Hertz — 1 phase (All Units)					
Return Air Cabinet	Model No.	RA10-16-49	RA10-16-49	RA10-16-53	RA10-16-53	RA10-16-53	RA10-16-53
	Net Weight (lbs.)	65	65	75	75	75	75

*For Propane units a field changeover kit is required and must be ordered extra. Order number LB-80131D for 82,000 thru 110,000 Btuh input models and LB-80133D for 137,000 and 165,000 Btuh input.

A.G.A. INSTALLATION CLEARANCES

Sides	1 inch
Rear	1 inch
Top	1 inch
Front	6 inches
Floor	Combustible
*Flue	*6 inches

*This is clearance to all flue pipes except type "B". Type "B" flue clearance is as listed by U.L.

When a furnace is installed in a confined space, two openings must be provided into the confined area, one opening near the top of the enclosure and one near the bottom. Each opening shall have at least one square inch of free area per 1000 Btuh of input and must not be smaller than 100 square inches of free area.

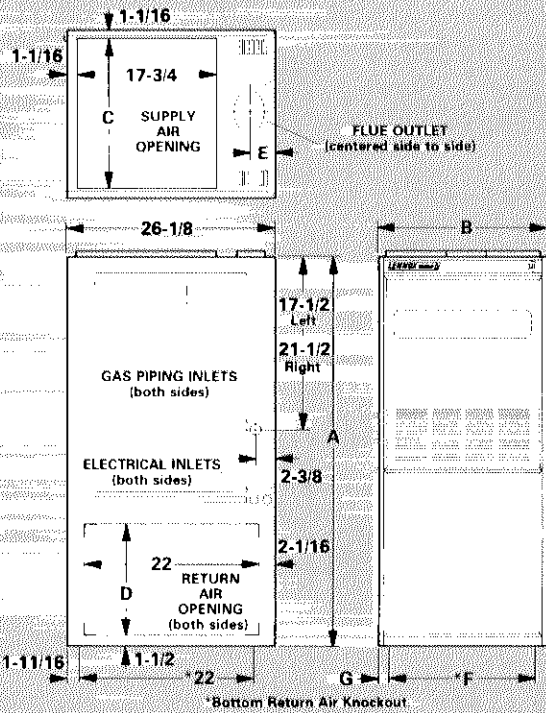
HIGH ALTITUDE DERATE

If the heating value of the gas does not exceed values listed in the table, derating of the unit is not required. Should the heating value of the gas exceed the table values, or if the elevation is greater than 6,000 feet above sea level it will be necessary to derate the unit. Lennox requires that derate conditions be 4% per thousand feet above sea level. Thus at an altitude of 4000 feet, if the heating value of the gas exceeds 1000 Btu/ft³, unit will require a 16% derate.

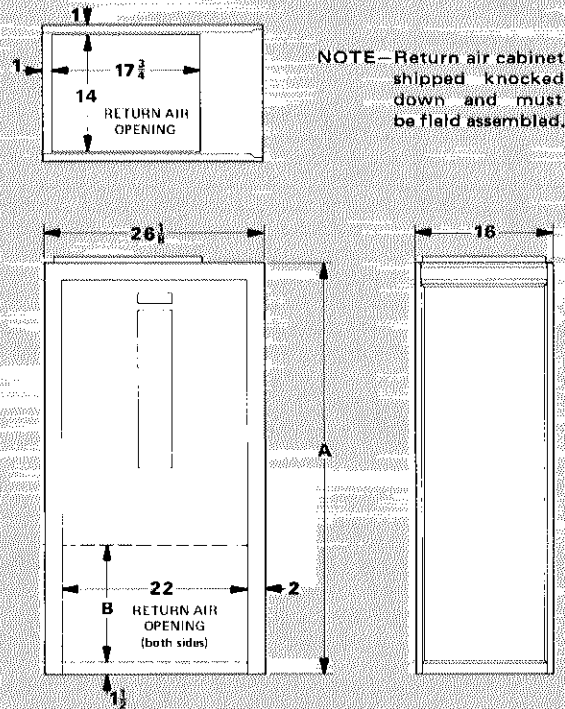
Elevation Above Sea Level (feet)	Maximum Heating Value (Btu/ft ³)
5001 — 6000	900
4001 — 5000	950
3001 — 4000	1000
2001 — 3000	1050
Sea Level — 2000	1100

DIMENSIONS (inches)

Gas Furnace



Return Air Cabinet



Model No.	A	B	C	D	E	F	G
G11Q3-82V	49	16-1/4	14-1/8	14	3-1/8	11	2-5/8
G11Q3-110V	49	21-1/4	19-1/8	14	3-1/8	14	3-5/8
G11Q3-137V, G11Q4-137V, G11Q5-137V	53	26-1/4	24-1/8	18	3-3/8	21	2-5/8
G11Q5-165V	53	31-1/4	29-1/8	18	3-3/8	26	2-5/8

Model No.	RA10-16-49	RA10-16-53
A	49	53
B	14	18

BLOWER DATA

G11Q3-82V BLOWER PERFORMANCE

External Static Pressure (in. wg)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1535	1280	1000	825
.05	1510	1265	995	825
.10	1485	1255	990	825
.15	1460	1240	980	820
.20	1435	1225	970	820
.25	1410	1210	965	815
.30	1385	1190	955	805
.40	1330	1155	930	780
.50	1270	1110	890	750
.60	1205	1050	840	715
.70	1130	980	775	665
.80	1040	890	695	600

NOTE—All cfm is measured external to the unit with the air filter in place.

G11Q3-110V BLOWER PERFORMANCE

External Static Pressure (in. wg)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1590	1330	1050	855
.05	1575	1325	1050	855
.10	1555	1315	1045	860
.15	1535	1305	1040	860
.20	1510	1290	1035	855
.25	1490	1280	1025	850
.30	1460	1260	1015	840
.40	1405	1225	990	820
.50	1340	1180	955	---
.60	1270	1125	910	---
.70	1190	1060	850	---
.80	1100	985	---	---

NOTE—All cfm is measured external to the unit with the air filter in place.

G11Q3-137V BLOWER PERFORMANCE

External Static Pressure (in. wg)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1740	1410	1130
.05	1705	1400	1125
.10	1670	1380	1120
.15	1630	1360	1115
.20	1590	1340	1110
.25	1550	1320	1100
.30	1510	1295	1085
.40	1435	1250	1060
.50	1355	1190	---

NOTE—All cfm is measured external to the unit with the air filter in place.

G11Q4-137V BLOWER PERFORMANCE

External Static Pressure (in. wg)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	2200	1790	1510
.05	2155	1786	1520
.10	2110	1778	1525
.15	2066	1764	1523
.20	2020	1743	1520
.25	1970	1720	1510
.30	1922	1690	1493
.40	1820	1614	1450
.50	1702	1520	1382
.60	1570	1412	1296
.70	1403	1291	1150
.80	1130	1050	---

NOTE—All cfm is measured external to the unit with the air filter in place.

G11Q5-137V BLOWER PERFORMANCE

External Static Pressure (in. wg)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2630	2300	2170	1805	1590
.05	2590	2275	2135	1775	1570
.10	2550	2245	2095	1750	1540
.15	2510	2210	2060	1720	1520
.20	2465	2175	2030	1695	1490
.25	2425	2140	1995	1670	1460
.30	2385	2110	1960	1640	1430
.40	2300	2030	1885	1575	1370
.50	2260	1950	1820	1500	1300
.60	2130	1870	1745	1420	1240
.70	2040	1780	1665	1340	1175
.80	1955	1690	1605	1240	1105

NOTE—All cfm is measured external to the unit with the air filter in place.

G11Q5-165V BLOWER PERFORMANCE

External Static Pressure (in. wg)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2710	2450	2255	1860	1670
.05	2685	2425	2235	1845	1655
.10	2655	2395	2210	1825	1635
.15	2625	2370	2190	1810	1615
.20	2600	2340	2165	1790	1590
.25	2565	2315	2140	1770	1570
.30	2535	2285	2115	1745	1550
.40	2470	2230	2060	1695	1490
.50	2400	2170	2000	1640	1435
.60	2330	2100	1930	1580	1370
.70	2250	2025	1860	1515	1310
.80	2165	1930	1780	1440	1240
.90	2065	1825	1695	1360	---
1.00	1925	1710	1605	1270	---

NOTE—All cfm is measured external to the unit with the air filter in place.